

DEPARTMENT OF TRANSPORTATION**DIVISION OF ENGINEERING SERVICES**

Office of Structural Materials

Quality Assurance and Source Inspection



Bay Area Branch
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Contract #: 04-0120F4Cty: SF/Ala Rte: 80 PM: 13.2/13.9File #: 69.28**WELDING INSPECTION REPORT****Resident Engineer:** Pursell, Gary**Address:** 333 Burma Road**City:** Oakland, CA 94607**Report No:** WIR-016321**Date Inspected:** 08-Aug-2010**Project Name:** SAS Superstructure**OSM Arrival Time:** 1900**Prime Contractor:** American Bridge/Fluor Enterprises, a JV**OSM Departure Time:** 700**Contractor:** Zhenhua Port Machinery Company, Ltd (ZPMC), Changxing Island **Location:** Shanghai, China**CWI Name:** See below**CWI Present:** Yes No**Inspected CWI report:** Yes No N/A**Rod Oven in Use:** Yes No N/A**Electrode to specification:** Yes No N/A**Weld Procedures Followed:** Yes No N/A**Qualified Welders:** Yes No N/A**Verified Joint Fit-up:** Yes No N/A**Approved Drawings:** Yes No N/A**Approved WPS:** Yes No N/A**Delayed / Cancelled:** Yes No N/A**Bridge No:** 34-0006**Component:** Tower Components**Summary of Items Observed:**

On this date Caltrans OSM Quality Assurance Inspector (QA Inspector) George Goulet was present during the times noted above for observations relative to the work being performed.

Bay 11

This QA Inspector randomly observed the following work in progress in Bay 11:

SMAW repair welding of weld joint ESD1-SPSA5-7-4A located on PCMK east tower, lift 5 splice plate assembly.

Welder was identified as 044541. QC was identified as ZPMC CWI Xu Le Feng (QC1). Welding variables recorded by QC1 appeared to comply with WPS-485-SMAW-2F(2G)-repair-1 as noted on ZPMC document T-CWR671 and attached page. See photo below showing pressure being applied to the stiffener being welded to the splice plate.

SMAW welding of weld joint ESD1-TL5-2E/F-42 located on PCMK east tower, lift 5, external connection plates. Alternating welders were identified as 040667, 040614. QC was identified as QC1. Assisting QC1 at this location and appearing to be monitoring the welding and recording data was ZPMC QC Xu Jie (QCA1), who was not a CWI. Welding variables recorded by QCA1 appeared to comply with WPS-B-T-3313-TC-P5.

SMAW welding of weld joint ESD1-TL5-2E/F-41 located on PCMK east tower, lift 5, external connection plates. Alternating welders were identified as 202100, 040690. QC was identified as QC1. Assisting QC1 at this location and appearing to be monitoring the welding and recording data was QCA1, who was not a CWI. Welding variables recorded by QCA1 appeared to comply with WPS-B-T-3313-TC-P5.

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SMAW welding of weld joint ESD1-TL5-2E/F-7B located on PCMK east tower, lift 5, internal connection plates. Alternating welders were identified as 046704, 040656. QC was identified as QC1. Assisting QC1 at this location and appearing to be monitoring the welding and recording data was QCA1, who was not a CWI. Welding variables recorded by QCA1 appeared to comply with WPS-B-T-3213-TC-U5b.

SMAW welding of weld joint WSD1-TL5-4B/F-22B located on PCMK west tower, lift 5, internal connection plates. Alternating welders were identified as 066261, 067558, 066326. QC was identified as QC1. Assisting QC1 at this location and appearing to be monitoring the welding and recording data was QCA1, who was not a CWI. Welding variables recorded by QCA1 appeared to comply with WPS-B-T-3213-TC-U5b.

Match drilling and deburring of approximately 32mm holes in the top flange of nine tower struts as follows: ED1-STSA4-6-139M-2, ND1-STSA4-6-135M-2, ED1-STSA4-6-127M-2, ND1-STSA4-6-131M-1, ND1-STSA4-6-131M-2, ED1-STSA4-6-123M-2, ED1-STSA4-6-131M-2, ED1-STSA4-6-127M-1, ND1-STSA4-6-135M-1. This QA Inspector observed previously drilled holes that had been deburred to the extent of producing a 1mm to 2mm chamfer at the upper edge of the drilled hole. The chamfers were not smooth and even, but instead were serrated or notched through their entire circumference. A photo below of a typical example of the nine struts observed.

Bay 10

This QA Inspector randomly observed the following work in progress in Bay 10:

SMAW welding of weld joint SSD1-TL5-1B-F-6A located on PCMK south tower, lift 5, internal connection plates. Alternating welders were identified as 040582, 057259. QC was identified as QC1. Assisting QC1 at this location and appearing to be monitoring the welding and recording data was ZPMC QC Li Peng Fei (QCA2), who was not a CWI. Welding variables recorded by QCA2 appeared to comply with WPS-B-T-3213-TC-U5b.

SMAW welding of weld joint SSD1-TL5-1B-F-22 located on PCMK south tower, lift 5, external connection plates. Alternating welders were identified as 053049, 056200. QC was identified as QC1. Assisting QC1 at this location and appearing to be monitoring the welding and recording data was QCA2, who was not a CWI. Welding variables recorded by QCA2 appeared to comply with WPS-B-T-3213-TC-U4c.

SMAW welding of weld joint SSD1-TL5-1B-F-23 located on PCMK south tower, lift 5, external connection plates. Alternating welders were identified as 052493, 052930. QC was identified as QC1. Assisting QC1 at this location and appearing to be monitoring the welding and recording data was QCA2, who was not a CWI. Welding variables recorded by QCA2 appeared to comply with WPS-B-T-3213-TC-U4c.

SMAW welding of weld joint SSD1-TL5-1B-F-12 located on PCMK south tower, lift 5, internal connection plates. Alternating welders were identified as 056364, 040581, 057266. QC was identified as QC1. Assisting QC1 at this location and appearing to be monitoring the welding and recording data was QCA2, who was not a CWI. Welding variables recorded by QCA2 appeared to comply with WPS-B-T-3313-TC-P5.

SMAW welding of weld joint SSD1-TL5-1E-F-28A located on PCMK south tower, lift 5, internal connection plates. Welder was identified as 050289. QC was identified as QC1. Assisting QC1 at this location and

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appearing to be monitoring the welding and recording data was QCA2, who was not a CWI. Welding variables recorded by QCA2 appeared to comply with WPS-B-T-3213-TC-U5b.

SMAW welding of weld joint NSD1-TL5-3B-F-11 located on PCMK north tower, lift 5, internal connection plates.

Alternating welders were identified as 066413, 067656. QC was identified as QC1. Assisting QC1 at this location and appearing to be monitoring the welding and recording data was QCA2, who was not a CWI. Welding variables recorded by QCA2 appeared to comply with WPS-B-T-3313-TC-P5.

SMAW welding of weld joints NSD1-TL5-3B-F-28B, 29B located on PCMK north tower, lift 5, internal connection plates at skin E. Alternating welders at both welds were identified as 037998, 037780. QC was identified as QC1. Assisting QC1 at this location and appearing to be monitoring the welding and recording data was QCA2, who was not a CWI. Welding variables recorded by QCA2 appeared to comply with WPS-B-T-3213-TC-U5b.

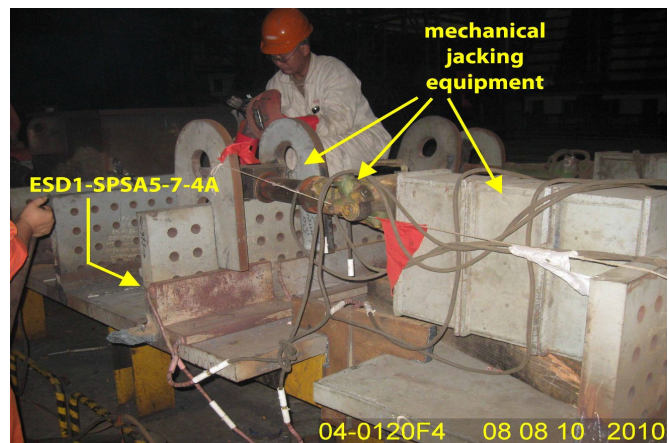
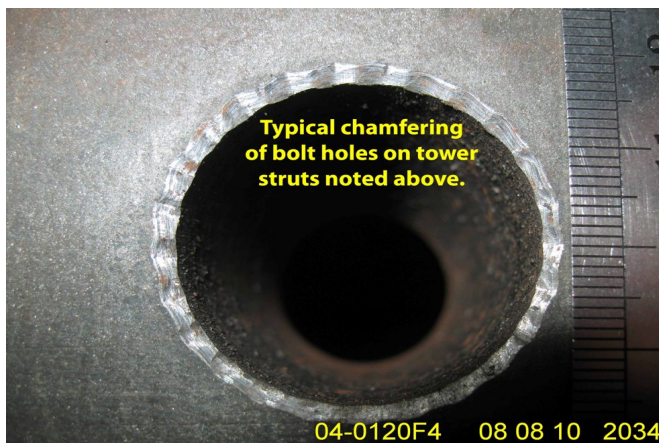
SMAW welding of weld joints NSD1-TL5-3B-F-30B, 31B located on PCMK north tower, lift 5, internal connection plates at skin E. Alternating welders at both welds were identified as 066763, 066418. QC was identified as QC1. Assisting QC1 at this location and appearing to be monitoring the welding and recording data was QCA2, who was not a CWI. Welding variables recorded by QCA2 appeared to comply with WPS-B-T-3213-TC-U5b.

Heavy Dock

This QA Inspector randomly observed the following work being performed on the Heavy Dock:

This QA Inspector observed no apparent work was being performed on the Heavy Dock. All 4 tower lift's 3 were connected and positioned on a base pedestal at end of the heavy dock. East and south tower lift's 2 were positioned horizontally on stanchions on the deck at the end of the heavy dock.

Unless otherwise noted, all work observed on this date appeared to generally comply with applicable contract documents.



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Summary of Conversations:

No significant conversations.

Comments

This report is for the purpose of determining conformance with the contract documents and is not for the purpose of making repair or fit for purpose recommendations. Should you require recommendations concerning repairs or remedial efforts please contact Micheal Ng, 159-2184-5703, who represents the Office of Structural Materials for your project.

Inspected By:	Goulet, George
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Quality Assurance Inspector

Reviewed By:	Dawson, Paul
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QA Reviewer
